UNITED STATES DEPARTMENT OF AGRICULTURE
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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
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In cooperation with State, Federal and Other Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING JULY 2, 1948

(Seventh Cotton Insect Survey Report for 1948)

Weather conditions have been favorable for holding the boll weevil in check in most areas except in some counties of Texas and Oklahoma.

The cotton leafworm is causing no damage and has been reported from only Refugio and Hidalgo Counties, Texas.

Grasshoppers are causing more than usual damage to cotton. Insecticides should be used promptly for their control wherever they appear in threatening numbers.

The cotton fleahopper, tarnished plant bug, cotton aphid, red spider mites, bollworm, tobacco budworm, woolly bear caterpillars (larvae of tiger moths), thrips and other pests are causing injury to cotton in many localities but no widespread serious outbreaks have been reported.

Cotton growers should be prepared to use insecticides promptly when serious outbreaks of the boll weevil or other insects develop. July and August are the critical months for serious insect damage to cotton. For the boll weevil infestations of 10% or more should be the criterion for the application of insecticides.

No shortages of insecticides have been reported.

BOLL WEEVIL

TEXAS: Rains during the week were beneficial to the cotton crop in many areas. Boll weevil infestations continue low, especially in the south plains, northwest and north central areas. In McLennan and Falls Counties in Central Texas the average square infestation was 22% as compared to 20% the previous week. Recent rains are enabling many new generation weevils to develop in this area and the infestation will undoubtedly increase in many fields.

The average boll weevil infestation in 535 fields in 45 counties throughout the State was 13% punctured squares, no change from the previous week. No weevils were found in 96 of the fields examined. In 254 fields 10% or less of the squares were punctured; in 100 fields from 11 to 25%; in 54 fields from 26 to 50%; and in 31 fields more than 50% of the squares were punctured.

OKLAHOMA: Sunshine and dry weather permitted more field examinations during the week than in the previous week. Cotton plants are still too small in many fields to make square infestation counts. Plant counts made in 25 fields in 7 counties averaged 25 weevils per acre. Infestation counts made in 43 fields in 10 counties averaged 5% punctured squares. No weevils were found in 23 of the fields examined. In 9 fields 10% or less of the squares were punctur and in 11 fields in Hughes, Pittsburg, McIntosh and Atoka Counties more than 11% of the squares were punctured.

LOUISIANA: Rains occurred in some areas of the State but in general weather conditions remained unfavorable for weevil development. In the examination of 567 cotton squares collected from the ground in two fields in Madison Parish, 81% of the weevil stages were alive and 19% dead. The average boll

weevil infestation in 221 fields in 14 parishes was 7% punctured squares as compared to 15% a year ago at this time. No punctured squares were found in 50 of the fields examined. In 131 fields 10% or less of the squares were punctured; in 22 fields from 11 to 25%; in 15 fields from 26 to 50%; and in 3 fields in Madison Parish more than 50% of the squares were punctured.

ARKANSAS: Rains were reported in some areas of southeastern Arkansas but generally weather conditions were unfavorable for weevil development. The average boll weevil infestation in 43 fields in the southeastern counties was 5% punctured squares as compared to 13% a year ago at this time. No punctured squares were found in 16 of the fields examined. In 18 fields 10% or less of the squares were punctured and in 9 fields from 11 to 25% of the squares were punctured.

In Desha, Lincoln, Jefferson and Drew Counties, 3,300 plants were examined in 11 fields, finding only 1 weevil or an average of 5 per acre.

MISSISSIPPI: Dr. Clay Lyle, Entomologist, State College, Mississippi, reported on July 6 that in the 471 fields in 47 counties examined, no weevils were found in 214 fields. In 257 fields where boll weevils were found the infestations averaged 13% punctured squares as compared to 25% punctured squares a year ago. The boll weevil situation in the state as a whole has not changed during the past week. Light infestations are general in the dry southern counties of the state, and in the Delta counties except Issaquena, Yazoo and Warren counties. Heavy weevil infestations occur in the central section of the state including Attala, Carroll, Chickasaw, Choctaw, Holmes, and Winston counties.

Of the 471 fields examined in Mississippi, 315 were on Delta farms. No weevils were found in 200 of these Delta fields. In 56 fields the infestations did not exceed 10% punctured squares, in 44 fields the infestations ranged from 11 to 25% punctured squares, and in only 15 fields were more than 25% of the squares punctured. The highest infestation reported in the Delta was a field in Yazoo County where 41% of the squares were punctured. No boll weevils or weevil punctured squares were noted in the 60 fields examined in Coahoma, Sunflower, Tallahatchie, Tate and Tunica Counties. B. J. Young of the Delta and Pine Land Company, in the Southern part of Bolivar County reports weevils in 111 of the 124 fields examined but no field had more than 15% of the squares punctured, and in only five fields did the infestation exceed 10% punctured squares.

GEORGIA: Boll weevils are causing little damage to the cotton crop. Hot, dry weather has been effective in checking weevil increase. In the examination of 155 cotton fields in 35 counties the highest infestation was 26% punctured squares in a field in Newton County. In ten of the 155 fields no punctured squares were found; in 122 fields the infestations did not exceed 10% punctured squares and in only 23 fields were more than 10% of the squares punctured.

SOUTH CAROLINA: Weather conditions in general were favorable for cotton growth and unfavorable for weevil development. The hot weather continued to kill many immature weevil stages in squares. The trap plot of early planted cotton near Florence was examined for the last time on June 30, when 16 boll weevils were collected bringing the total for the season to 550 as compared to 1065 on this date a year ago. The emergence into the trap plot was about equal to the average of 552 during the past 11 years. In only 4 years, 1938, 1940, 1944 and 1946, was the emergence of hibernating boll weevils into the trap plot less than in 1948.

Weevils were found in all of the 95 fields examined in 18 counties. In 46 fields 10% or less of the squares were punctured; in 45 fields from 11 to 25% of the squares were punctured; and in only 4 fields in Florence and Dorchester Counties were more than 25% of the squares punctured. Hot, dry weather has helped to hold down the boll weevil infestations, but a rainy July could enable the weevils to cause serious damage.

NORTH CAROLINA: J. T. Conner, Jr., Extension Entomologist, reported on July 3: "Continued hot, dry weather over most of the State during the week. Cotton is growing vigorously in most places and boll weevils are faring poorly. If weather conditions continue hot and dry, we can expect natural control of boll weevils in many areas. General moderate rains fell on Wednesday over most of the north-eastern counties. Heavy rain and wind damage occurred over the week-end to all crops including cotton in Hertford County.

Blooms were observed in all Counties except Chowan. Plants are fruiting in all counties, though many fields have poor stands. From the standpoint of the general observer, Chowan County is outstanding for uniform fields, good stands, and general condition of the crop.

The average field infestation for this time last year was 29.15% whereas the average for this week is 2.27%. Many farmers are dusting needlessly. All growers are urged to make counts before dusting. Do not dust unless 10% or more squares are being punctured. Save your dust NOW. You may need it later on.

The average square infestation in 87 fields in 17 counties was 2%. In 30 fields no punctured squares were found; in 52 fields less than 10% were punctured; and in 5 fields in Cumberland, Sampson and Northhampton Counties more than 10% of the squares were punctured, but no field examined had as many as 25% of the squar punctured.

VIRGINIA: W. Don Fronk, Assistant Entomologist, Nansemond County, Agricultural Experiment Station, Holland, Virginia, reported on June 30 that he had examined 100 cotton squares without finding any of them punctured and without finding any boll weevils.

COTTON FLEAHOPPER, TARNISHED PLANT BUG, RAPID PLANT BUG AND OTHER MIRIDAE

TEXAS: There was little change in cotton fleahopper infestation during the week. The average in 480 fields in 45 counties was 10 per 100 terminals as compared to 8 the previous week. In Central Texas near Waco there was a slight decrease. The average was 6 fleahoppers per 100 terminals as compared to 10 the previous week. Some unpoisoned fields in this area continue to suffer damage

LOUISIANA: Tarnished plant bugs were reported in approximately 50% of the fields in Louisiana where boll weevil infestation records were made, while rapid plant bugs were reported in about 20% of the fields.

In Madison Parish, tarnished plant bug adults appeared to be decreasing in number Nymphs and a few young adults were observed while examining squares for boll weevils. Sweepings were made in 4 fields, finding 12 to 33 tarnished plant bugs per 100 sweeps or an average of 18.

L. D. Newsom, Assistant Entomologist, Agricultural experiment Station, Baton Rouge, reported: "The tarnished plant bug persists in most fields, (Northwest Louisiana) and its injury is showing up on bolls as well as squares."

ARKANSAS: Tarnished plant bugs were present in 78% of the fields in which boll weevil infestation records were made.

MISSISSIPPI: Tarnished plant bugs were found in 104 of the 315 fields examined in the Delta, mostly in the Central and Sounthern Delta counties. Rapid plant bugs were reported in 23 fields and cotton fleahoppers in 8 fields.

COTTON LEAFWORM

TEXAS: No cotton leafworms were reported during the week. On June 20, they were found in Refugio County and on June 23 in Hidalgo County.

APHIDS

LOUISIANA: Dr. L. D. Newsom reported that aphids were present in small numbers in all cotton fields examined in northwest Louisiana.

OKLAHOMA: Light infestations of aphids were reported in 5 southern counties. Heavy infestations were reported at Atoka and Hughes Counties.

RED SPIDER

LOUISIANA: Red spider mites were reported in many cotton fields during the week. The infestations were largely confined to areas adjacent to weeds and grass.

MISCELLANEOUS INSECTS

TEXAS: Grasshoppers are causing serious damage throughout central Texas, and cotton growers are continuing to use control measures.

LOUISIANA: Hairy caterpillars were reported in several cotton fields in the south central portion of the State.

Dr. L. D. Newsom reported that tree cricket injury had been observed in northwest Louisiana and many plants had been killed in one field under observation.

MISSISSIPPI: Dr. Clay Lyle reports grasshoppers are causing damage in some Delta Counties and also in Covington, Forrest, Jefferson Davis, Marion and Simpson counties in the Southern part of the State.

INSECTS ON IRRIGATED COTTON OF THE SOUTHWEST

ARIZONA: Stinkbug and Mirid populations increased in cotton fields in the Salt River Valley. The heaviest infestations observed on cotton were near alfalfa fields that had been recently cut. Several fields have been dusted with a 5% DDT-sulfur dust mixture in the Waddell, Litchfield, Buckeye, Perryville, Queen Creek, Chandler, and Scottsdale areas for hemipterous insect control. One advanced cotton field in the Buckeye area was sprayed by airplane for stinkbug control.

In the Santa Cruz Valley injurious hemipterous insects continue low. The beet army-worm infestation in the Marana area has apparently been checked by the second application of DDT.

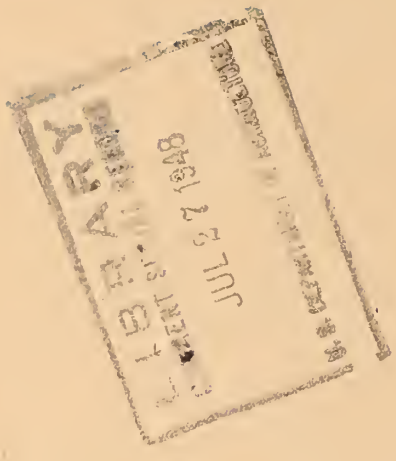
K. K. Henness, Pinal County Agricultural Agent, Casa Grande area reported: "Sweepings in 19 widely separated fields showed counts ranging up to 12 injurious sucking insects per 100 net strokes. Lygus bugs predominated."

S. L. Owens, Graham County Agricultural Agent, Safford Valley, reported: "Injurious cotton insects are very low in this county. The highest count was only 2 Lygus per 100 net strokes. Many beneficial lady-bugs were noted in all fields swept."

NEW MEXICO: W. B. Rogers, reports from the Pecos Valley: "Sweepings in 22 fields showed injurious sucking insects ranging up to 5 per 100 net strokes. A general light bollworm infestation was noted."

TEXAS: Lygus and superb plant bug infestation continued to increase and in some cotton fields the populations are high enough to warrant poison applicatio Leucopecila albofasciatus (tentatively determined) continued to be the most numerous of the Miridæ, but there was a decrease in populations the past week. Sweepings made in 10 representative fields in the El Paso Valley averaged 19 injurious hemipterous insects per 100 sweeps, ranging from 6 to 38.

PREPARED JULY 8, 1948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